NOTES AND NEWS.

THE EDITORSHIP of Pringsheim's *Jahrbücher für wissenschaftliche Botanik* has been taken by Professors Pfeffer and Strasburger.

MACMILLAN & Co. announce a rural science series to be edited by Prof. L. H. Bailey of Cornell University. The first number will appear shortly.

MEEHAN'S MONTHLY will add hereafter four pages to its monthly issue. The fine colored plates, executed by Prang & Co., will be continued, which alone are worth the subscription price.

APPLIED BOTANY takes on many forms. It is announced that a society composed of students of the American Brewing Academy of Chicago numbers 200 members. The society has the unique name, SACCHAROMYCES CEREVISIÆ.

THE BACTERIAL DISEASE of sugar beets, first described in 1892 by J. C. Arthur and Katherine E. Golden, has been detected in Germany by Paul Sorauer. It is considered a similar disease to "sereh," a destructive disease of sugar cane.

FAVORABLE RESULTS in spraying to prevent black knot of plum trees have deen obtained by Mr. E. G. Lodeman (*Garden and Forest* 7: 508). His work seems to show, however, that the life-history of the fungus still presents much that needs elucidating, or at least verifying.

ELLIS AND EVERHART have recently published in the Proceedings of the Philadelphia Academy of Sciences descriptions of 241 new species of fungi, distributed among the following orders: Hymenomycetes 10, Pyrenomycetes 71, Discomycetes 22, Sphæropsideæ 92, and Hyphomycetes 46.

AMERICAN BOTANISTS should not let the opportunity pass to secure sets of both European and North American mosses put up by Messrs. Renauld and Cardot of France, and distributed in this country through Mr. J. M. Holzinger of Winona, Minn. The price is moderate, and the specimens very desirable.

THE LAST NUMBER of *Agricultural Science*, which recently appeared, is given as June–September, 1894. It is mostly occupied with the proceedings of the Society for the Promotion of Agricultural Science. This journal, although an excellent one, and occupying a place not filled by any other, is evidently having a struggle to keep alive.

THE ACETIC ACID ORGANISM, heretofore known as Mycoderma aceti, has been separated by Hansen in a recent publication from the Carlsberg Laboratory into two forms, which are called Bacterium aceti and B. Pasteurianum. The former is colored yellow by iodine and the latter blue. The transfer to the genus Bacterium was suggested by Zopf.

ADDITIONAL DESCRIPTIONS of species of Ravenelia are given in the last issue of Hedwigia (33: 367), by Dr. P. Dietel, to supplement his account of the genus in a former number (*l. c.* 22). The form on Acacia anisophylla and A. crassifolia from Mexico is separated under the name *R. Farlowiana*, n. sp., from *R. versatilis* (Pk.) on A. Greggii. Two other new species from Mexico are described, *R. Indigoferæ* on Indigofera Palmeri, and *R. Mexicana* on Calliandra. The *Uromyces deciduus* on Prosopis from California, described by Peck, is identified as the uredoform of *R. Holwayi* Diet., necessitating a change in the name to *R. decidua* (Pk.) Holw.

MR. J. REYNOLDS GREEN communicated to the British Association for the Advancement of Science at its last meeting the results of some experiments to determine the effect of light on diastase. He found that "light, whether solar or electric, exercises a destructive effect on diastase. The deleterious effect is confined to the rays of the violet end of the spectrum, the others being slightly favorable instead of destructive. . . . The destructive effect continues after exposure to light is discontinued, the exposed solution getting weaker and weaker till it had no diastatic property. The part of the solution kept in darkness maintained its diastatic power unimpaired for more than a month, by which time the exposed part, kept in darkness after its period of exposure, possessed no power to act upon starch."[1]

BULLETINS from the Experiment Stations of botanical interest, received since the last mention, are as follows: Grasses of Tennessee by F. L. Scribner (Tenn. 7: no. 1) is a very complete handbook of the grasses of the state, each species described and illustrated by an original drawing; Seed testing by Gerald McCarthy (N. C., no. 108), a rather extended treatise well illustrated; Millet by A. A. Crozier (Mich., no. 117) contains much information upon the history of the races and usage of the name, beside practical matters; Grafting of grapes by E. G. Lodeman (Cornell, no. 77) includes some account of the cell structure; Smuts of wheat, oats and barley by Luther Foster (Mont., no. 2); Spraying apple trees by Chas. A. Keffer (Mo., no. 27); and Some grape troubles of western New York by E. G. Lodeman (Cornell, no. 77) containing new observations, with good illustrations.

THE SEARCH for sexual organs in connection with the æcidia and spermogonia of the Uredineæ seems likely to prove futile, in spite of the supposed discovery of them by Massee. Careful work has been done by Rudolf Neumann (Hedwigia 33: 346), under the direction of Prof. Reess of Erlangen. He used alcoholic material, imbedded in paraffin, and cut with the microtome, and fresh material cut by hand. The examination of thousands of sections with oil immersion lens and otherwise, disclosed no trace of sexual organs. Both æcidia and spermogonia arise directly from the unchanged hyphæ. The forms examined grew upon Ficaria ranunculoides, Allium ursinum, Euphorbia Cyparissias, Falcaria Rivini, Sagittaria sagittifolia, Tragopogon pratensis and Berberis vulgaris. The hyphæ in the first two may be traced with ease at all stages, in the others with some difficulty, especially so in the last. The form on Ficaria was the one studied by Massee.

[1] Annals of Botany **8**: 373. S 1894.